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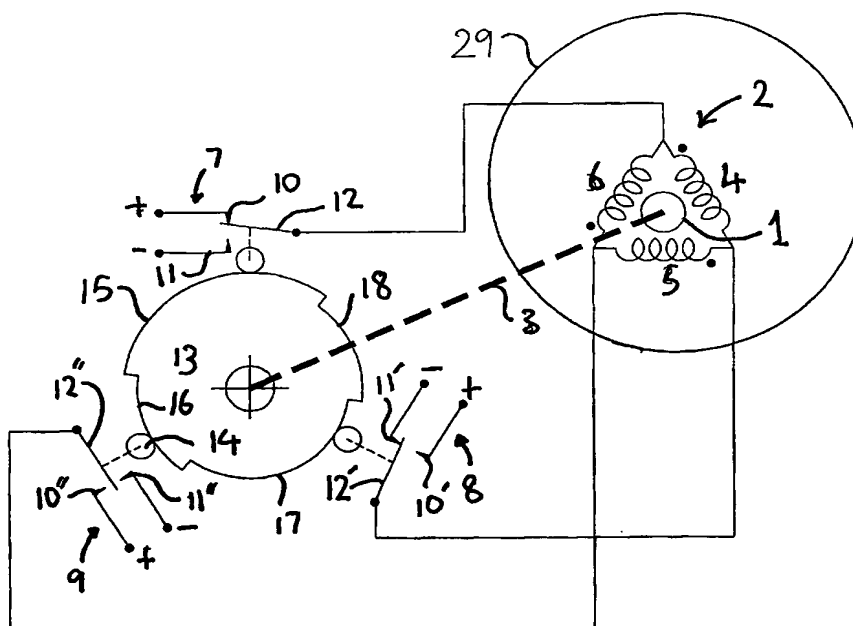
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(54) Title: ROTATING ELECTRICAL MACHINE



(57) Abstract: A rotating electrical machine has a housing with a shaft mounted rotatably in it. A rotor is fixed to the shaft and has a plurality of magnetic poles. A stator is positioned about the rotor and has a winding. A switch is mounted within the housing and has a first position for allowing current in one direction through the winding and a second position for allowing current in an opposite direction through the winding. A mechanical activator is movable with or by the shaft and acts on the switch to move it between the first and second positions.